



AIRWORTHINESS DIRECTIVE

This Airworthiness Directive (AD) is issued pursuant to Canadian Aviation Regulation (CAR) 521.427. No person shall conduct a take-off or permit a take-off to be conducted in an aircraft that is in their legal custody and control, unless the requirements of CAR 605.84 pertaining to ADs are met. Standard 625 - Aircraft Equipment and Maintenance Standards Appendix H provides information concerning alternative means of compliance (AMOC) with ADs.

Number:

CF-2023-13

Effective Date:

10 March 2023

ATA:

32

Type Certificate:

A-234

Subject:

Landing Gear – Nose Wheel Steering System – Steering Control Unit Filter Plate Connector Failure

Applicability:

Bombardier Inc. model BD-100-1A10 aeroplanes, all serial numbers.

Compliance:

As indicated below, unless already accomplished.

Background:

The manufacturer of the steering control unit (SCU), part number (P/N) 46000–01, introduced a new filter plate connector that does not meet the certification requirements related to the susceptibility of electronic components to high intensity radiated field. This non-compliant filter plate connector, if not replaced, could result in a malfunction of the nose wheel steering (NWS) system causing potential un-commanded steering or lateral excursion from the runway.

This AD requires the removal and replacement of all affected non-compliant SCUs, P/N 46000–01.

Corrective Actions:

Part I – Verification of the Aeroplane Technical Records

- A. Within 24 months from the effective date of this AD, verify the aeroplane technical records to determine if the serial number of the SCU, P/N 46000–01, is listed in Table 1 of Section 1.A. of the applicable Service Bulletin (SB) listed in Table A of this AD.
- B. If the serial number of the SCU is not listed in Table 1 of Section 1.A. of the applicable SB or is re-identified on the name plate as SB100–32–030 then Part II and Part III of this AD are not required. Proceed to Part IV of this AD.
- C. If the verification of the aeroplane technical records cannot be performed or if an inspection of the SCU is preferred to a records check, proceed to Part II of this AD.

Part II – Inspection

- A. Within 24 months from the effective date of this AD, inspect the serial number of the SCU, P/N 46000–01, in accordance with Section 2.B. Part A of the Accomplishment Instructions of the applicable SB listed in Table A of this AD.
- B. If the serial number of the SCU is not listed in Table 1 of Section 1.A. of the applicable SB or is re-identified on the name plate as SB100–32–030 then Part III of this AD is not required. Proceed to Part IV of this AD.

Part III – Replacement

- A. Within 24 months from the effective date of this AD, remove and replace the SCU, P/N 46000–01, identified in Part I or Part II of this AD, in accordance with Section 2.C. Part B of the Accomplishment

Instructions of the applicable SB listed in Table A of this AD.

- B. Prior to return to service, rig and test the NWS control in accordance with Section 2.D. of the Accomplishment Instructions of the applicable SB listed in Table A of this AD.

Part IV – Installation Prohibition of Components

As of the effective date of this AD, it is prohibited to install SCU, P/N 46000–01, as a replacement part, if the serial number is listed in Table 1 of Section 1.A. of the applicable SB listed in Table A of this AD, unless the SCU has been re-identified with SB100–32–030 on the name plate.

Table A – Applicable Bombardier SBs

Aeroplane Model	Aeroplane Serial Number	Applicable Bombardier SBs
BD-100-1A10 (Challenger 300)	20001 through 20500	SB 100-32-34, Basic Issue, dated 18 October 2021, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.
BD-100-1A10 (Challenger 350)	20501 through 20893	SB 350-32-010, Basic Issue, dated 18 October 2021, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Jenny Young
Chief, Continuing Airworthiness
Issued on 24 February 2023

Contact:

Philip Lynch, Continuing Airworthiness, Ottawa, telephone 888-663-3639, facsimile 613-996-9178 or e-mail TC.AirworthinessDirectives-Consignesdenavigabilite.TC@tc.gc.ca or any Transport Canada Centre.